

# Europäisches Patentamt European Patent Office Office européen des brevets



(11) **EP 1 031 329 A3** 

(12)

# **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3: **21.08.2002 Bulletin 2002/34** 

(51) Int Cl.7: **A61F 2/06** 

(43) Date of publication A2: **30.08.2000 Bulletin 2000/35** 

(21) Application number: 00301411.5

(22) Date of filing: 23.02.2000

(84) Designated Contracting States:

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU

MC NL PT SE

Designated Extension States: AL LT LV MK RO SI

(30) Priority: 24.02.1999 US 256914

(71) Applicant: Cordis Corporation
Miami FL 33126 (US)

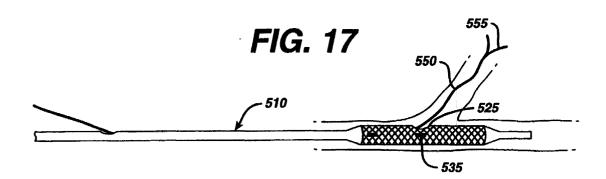
(72) Inventor: Hojeibane, Hikmat
Princetown, New Jersey 08540 (US)

 (74) Representative: Fisher, Adrian John et al CARPMAELS & RANSFORD
 43 Bloomsbury Square London WC1A 2RA (GB)

### (54) Bifurcated axially flexible stent

(57) There is disclosed a method of stent placement which comprises first guiding a guidewire through the vasculature. Second, a balloon catheter which contains two guidewire lumens is strung along the guidewire into position at the bifurcation. The distal opening of the second guidewire lumen abuts the proximal end of the bifurcation. Thereafter, a second guidewire is strung

through the first balloon catheter and out the distal opening of the second guidewire lumen. Thus, resident in the second bifurcation leg is the second guidewire. Then, a second standard stent delivery balloon catheter is guided along the second guidewire to a position within the bifurcation. Typically, expansion of both stents can be done one right after the other after proper placement of the first and second balloons.



EP 1 031 329 A3



# **EUROPEAN SEARCH REPORT**

Application Number EP 00 30 1411

		ERED TO BE RELEVANT	T		
Category	Citation of document with i of relevant pass	ndication, where appropriate, sages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)	
X	FR 2 733 682 A (DIE 8 November 1996 (19 * page 3, line 24 -	96-11-08) page 5, line 31 *	1,7	A61F2/06	
A	* page 6, line 1 -		10,14-16		
X	1 September 1998 (1 * figures 1A,1B * * column 8, line 46 * column 9, line 58	- line 63 * - column 10, line 13 *	16		
A	* column 11, line 1	2 - 11ne 52 *	1,7,10, 14,15		
X	IAN M (CA); RICCI D 13 November 1997 (1 * page 12, line 1 -	page 14, line 2 *	7		
A	* page 1/,   line 21	- page 19, line 27 *	1-6,8-16	TECHNICAL FIELDS SEARCHED (Int.CI.7)	
P,X	31 March 1999 (1999 * figures 8A,8B *	·	7	A61F	
A	* paragraph '0088!	- paragraph '0093! *	1,8-16		
A	WO 98 19628 A (VARD CHARLES J (US)) 14 * figures 1-3 * * page 9, line 14 -	May 1998 (1998-05-14)	1-16		
		-/			
	The present search report has	been drawn up for all claims			
	Place of search	Date of completion of the search		Examiner	
	THE HAGUE	2 July 2002	Mar	y, C	
X : part Y : part doct A : tech O : non	ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if combined with anounce of the same category inological background—written disclosure rmediate document	E : earlier patent do after the filling da her D : document cited L : document cited f	cument, but publicate in the application or other reasons	shed on, or	

EPO FORM 1503 03.82 (P04C01)



#### **EUROPEAN SEARCH REPORT**

Application Number EP 00 30 1411

**DOCUMENTS CONSIDERED TO BE RELEVANT** CLASSIFICATION OF THE APPLICATION (Int.CI.7) Citation of document with indication, where appropriate, Relevant Category of relevant passages to claim Α US 5 755 771 A (PENN IAN M ET AL) 1,7,10, 26 May 1998 (1998-05-26) 14-16 \* figure 2 \* \* column 5, line 28 - line 52 \*
\* column 6, line 41 - line 64 \*
\* column 7, line 33 - line 44 \* P,A US 5 893 887 A (JAYARAMAN SWAMINATHAN) 1-5,7, 13 April 1999 (1999-04-13) 10,14-16 \* figures 7,9,11 \* \* column 4, line 10 - column 5, line 19 \* TECHNICAL FIELDS SEARCHED (Int.CI.7) The present search report has been drawn up for all claims Date of completion of the search THE HAGUE 2 July 2002 Mary, C T: theory or principle underlying the invention
 E: earlier patent document, but published on, or after the filing date
 D: document cited in the application
 L: document cited for other reasons CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone
 Y: particularly relevant if combined with another document of the same category
 A: technological background
 O: non-written disclosure
 P: intermediate document

EPO FORM 1503 03.82 (P04C01)

& : member of the same patent family, corresponding document

## ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 00 30 1411

This annex lists the patent family members relating to the patent documents cited in the above–mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

02-07-2002

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
FR 2733682	A	08-11-1996	FR AU AU CA	2733682 A1 709513 B2 5345096 A 2220141 A1	08-11-1996 02-09-1999 21-11-1996 07-11-1996
			ΕP	0957818 A1	24-11-1999
			WO	9634580 A1	07-11-1996
			JP	11504824 T	11-05-1999
			US	2001039448 A1	08-11-2001
			US	6346089 B1	12-02-2002
			US	6183509 B1	06-02-2001
US 5800508	Α	01-09-1998	US	5609627 A	11-03-1997
			AT	188604 T	15-01-2000
			AT AT	191628 T 191629 T	15-04-2000
			AU	693527 B2	15-04-2000 02-07-1998
			AU	1870995 A	29-08-1995
			AU	3224599 A	05-08-1999
			ΑÜ	719206 B2	04-05-2000
			ΑU	6381598 A	18-06-1998
			ΑU	717678 B2	30-03-2000
			ΑU	6381698 A	18-06-1998
			CA	2182982 A1	17-08-1995
			DE	29521548 U1	10-07-1997
			DE DE	29521776 U1	27-08-1998
			DE	29522113 U1 29522160 U1	07-10-1999 13-04-2000
			DE	29522160 U1 29522161 U1	30-03-2000
			DE	29522162 U1	30-03-2000
			DE	69514511 D1	17-02-2000
			DE	69514511 T2	05-10-2000
			DE	69516292 D1	18-05-2000
			DE	69516292 T2	14-12-2000
			DE	69516293 D1	18-05-2000
			DE	69516293 T2	31-08-2000
			DK	759729 T3	08-05-2000
			DK DK	783873 T3 783874 T3	18-09-2000 24-07-2000
			EP	0759729 A1	24-07-2000 05-03-1997
			EP	0782841 A2	09-07-1997
			ĒΡ	0783873 A2	16-07-1997
			ΕP	0783874 A2	16-07-1997
			ES	2141339 T3	16-03-2000
			ES	2146951 T3	16-08-2000
			ES	2144824 T3	16-06-2000
			GR	3033211 T3	31-08-2000

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

FORM P0459

# ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 00 30 1411

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

02-07-2002

Patent document cited in search report		Publication date		Patent family member(s)		Publication date	
115	5800508	A		GR	3033133	T3	31-08-2000
UJ	3000300	A		GR	3033808		31-10-2000
				JP		Ť	11-11-1997
				US	6117167		12-09-2000
				MO	9521592		17-08-1995
				US	6302906		16-10-2001
				US	6165213		26-12-2000
				US	5716365		10-02-1998
				US	5693086		02-12-1997
				US	5776180		07-07-1998
				US	5718724	Α	17-02-1998
				US	5683450	Α	04-11-1997
				US	5916263	Α	29-06-1999
				US	6051020		18-04-2000
WO	9741803	Α	13-11-1997	CA	2175720	A1	04-11-1997
				ΑU	2377397		26-11-1997
				WO	9741803		13-11-1997
				ËP	0959811		01-12-1999
				ĴΡ	2001501496		06-02-2001
			·				
ΕP	0904745	Α	31-03-1999	AU	8606898	Α	15-04-1999
				CA	2246995	A1	24-03-1999
				ΕP	0904745		31-03-1999
				JP	11188111		13-07-1999
	9819628	A	14-05-1998	AU	4896797		29-05-1998
MO	9019020	Λ.	14031330	EP	0944366		29-09-1999
				US	6210429		03-04-2001
				WO	9819628		14-05-1998
				MO	9936002		22-07-1999
				US	2001016766		23-08-2001
				US	2001037137	A1	01-11-2001
IIS	5755771	Α	26-05-1998	CA	2134997	A1	04-05-1996
	_,,			AT	166783		15-06-1998
				ΑÚ	3678599		28-10-1999
				AU	3739795		31-05-1996
					9614028		17-05-1996
				WO			
				CZ	9701329		17-12-1997
				DE	69502817		09-07-1998
				DE	69502817		25-02-1999
				DK	751752		22-03-1999
				ΕP	0751752		08-01-1997
				EP	0847734		17-06-1998
				ES	2119487		01-10-1998

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

FORM P0459

# ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 00 30 1411

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

02-07-2002

	Patent docume cited in search re	nt port	Publication date		Patent family member(s)	Publication date
US	5755771	Α		GR HK JP RU US US	3027774 T3 1009322 A1 10508234 T 2180198 C2 6099560 A 5906640 A	30-11-1998 28-05-1999 18-08-1998 10-03-2002 08-08-2000 25-05-1999
US	5893887	Α	13-04-1999	NONE		

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82